

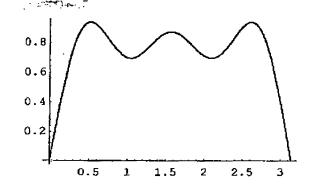
Sin[t] + (1/3)Sin[3t] + (1/5)Sin[5t]

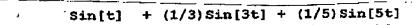
1.5

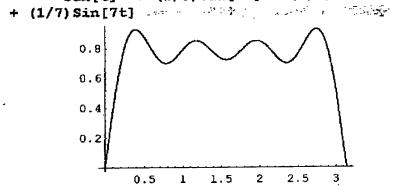
0.5

1

2.5







 $Sin[t] \cdot + (1/3)Sin[3t] + (1/5)Sin[5t]$ + (1/7)Sin[7t] + (1/9)Sin[9t] 0.8 FILS 0.6 0.4 0.2 1.5 2 2.5 0.5 1 Sin[t] + (1/3)Sin[3t] + (1/5)Sin[5t] $+ (1/7)\sin[7t] + (1/9)\sin[9t] + (1/11)\sin[11t]$ 0.8 0.4 0.2 2.5 0.5 1.5 Sin[t] + (1/3)Sin[3t] + (1/5)Sin[5t]+ $(1/7)\sin[7t]$ + $(1/9)\sin[9t]$ + $(1/11)\sin[11t]$ + (1/13)Sin[13t] + (1/15)Sin[15t] + (1/17)Sin[17t] $+1/19\sin[19t] + (1/21)\sin[21t] + (1/23)\sin[23t]$ 0.6 0.4

الادعة

0.2

0.5

1

1.5

2

2.5

F17 6

$$x(t) = \sum_{k=-\infty}^{\infty} c_k e^{jk\omega_0 t}$$

$$\omega_0 = 2\pi/T_0$$

$$c_k = A \frac{d}{T_0} \frac{(\sin(k\omega_0 d/2))}{k\omega_0 d/2} e^{-jk\omega_0 d/2}$$

$$FACT: exp(jt) = e^{jt}$$

$$IF' d=T_0/4$$

$$THEN \ k\omega_0 d/2 = k\pi d/T_0 = k\pi/4$$

$$THUS \ e^{-jk\omega_0 d/2} = e^{-jk\pi/4} = -jsin(k\pi/4) = +/-j$$

$$|c_k| = \frac{A}{4} \frac{\sin(k\pi/4)}{k\pi/4}$$

